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US EPA RECORDS CENTER REGION 5



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FINAL REPORT  
GEOPHYSICAL INVESTIGATION  
SCA CHICAGO INCINERATOR FACILITY  
CHICAGO, ILLINOIS

June 27, 1986

Prepared For:

SCA Chemical Services Co.  
Chicago Incinerator  
11700 S. Stony Island Avenue  
Chicago, Illinois

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EPA-DLPC

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Project No. 1546

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GEOPHYSICAL INVESTIGATION  
SCA CHICAGO INCINERATOR FACILITY  
CHICAGO, ILLINOIS

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## 1.0 EXECUTIVE SUMMARY

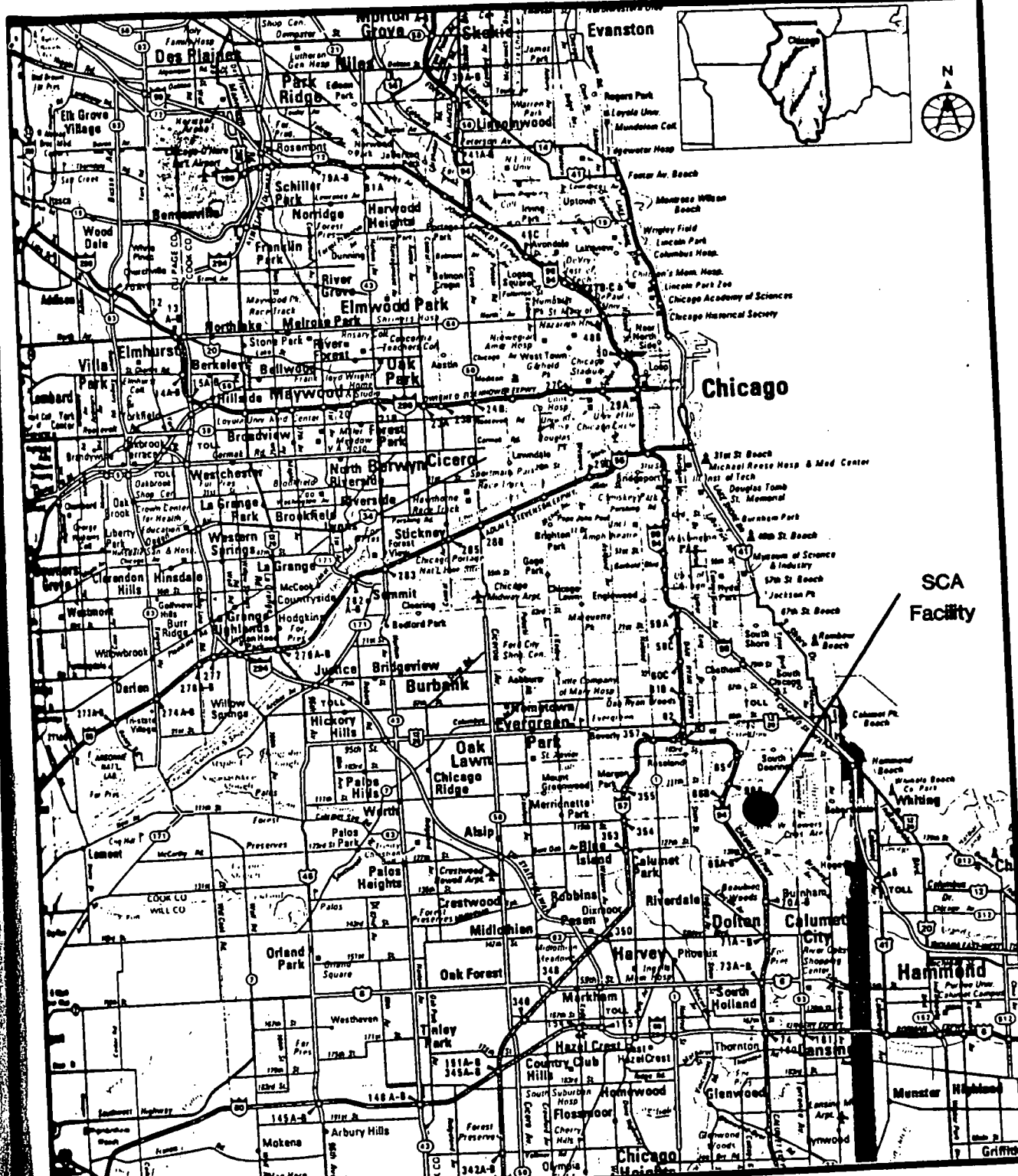
This report contains the results of a geophysical investigation carried out on September 7, 1985, at the SCA Chicago incinerator facility located in Chicago, Illinois. The main objective of this investigation was to identify the extent of process water which had leaked from a buried pipeline at the facility.

The work for this project included carrying out an electromagnetic conductivity survey in the area between the incinerator facility and the impoundments and around the EPA compliance monitor wells. These results were interpreted by comparison to existing water quality data and available hydrogeologic information.

Probable areas of impacted ground-water quality are delineated and within these areas the zones most likely related to the extent of process water which had leaked from the pipeline are defined. It appears that sources other than the leaking pipeline are also responsible for impacted ground-water quality. These other sources include previously existing lagoons, landfills, and possibly fill material used in the construction of the pier. Should differentiation of the process water plume from other sources be needed, recommended locations for additional test borings are presented.

## 2.0 INTRODUCTION

The SCA Chicago incinerator facility is located in southeast Chicago (Figure 1). The facility's cooling ponds are located on a narrow pier constructed of rubble fill that extends into Lake Calumet. As part of a ground-water quality assessment at the facility, Hydro-Search, Inc. was contracted to conduct a surface geophysical investigation. The purpose of the investigation was to delineate the extent of a chloride-rich plume of process water that had leaked from underground plant-to-cooling pond pipelines.



## SITE LOCATION


PROJECT	1548	REVISIONS
DATE	9/13/85	
 <b>Hydro-Search, Inc.</b> CONSULTING HYDROLOGISTS-GEOLOGISTS Reno Denver Milwaukee		

FIGURE 1